## Chemical potential responses in two flavor lattice QCD at finite temperature

S.Choe<sup>a</sup> Ph. de Forcrand<sup>b</sup> S.Hioki<sup>c</sup> Y.Liu<sup>a</sup> H.Matsufuru<sup>d</sup> O.Miyamura<sup>a</sup> A.Nakamura<sup>e</sup> I.O.Stamatescu<sup>f</sup> T.Takaishi<sup>g</sup> T.Umeda<sup>a</sup>

<sup>a</sup>Dept.Phys., Hiroshima University, Higashi-Hiroshima 739-8526, Japan

<sup>b</sup>ITP-Zurich, CH-8092 Zurich, Switzerland

<sup>c</sup>Tezukayama University

<sup>d</sup>RCNP, Osaka University, Ibaraki 567-0047, Japan

<sup>e</sup>REESE,Hiroshima University, Higashi-Hiroshima 739-8526, Japan

<sup>f</sup>ITP, Heidelberg University and FEST, D-69120 Heidelberg, Germany

<sup>g</sup>Hiroshima University of Economics, Hiroshima 731-01, Japan

Presented by: O.Miyamura

## Abstract

We study charge and baryon number fluctuations in two flavor lattice QCD at finite temperature. The fluctuations at finite volume are measured on  $16 \times 8^2 \times 4$  lattice with staggered quark. Responses of screening masses to baryonic chemical potential are also investigated. Results below and above critical temperature are presented and discussed.